

I Claim:

1. A system of loading dispensable objects into a dispenser in an array of locations, each location being arranged to receive one of a variety of the objects to be dispensed, the system comprising:

- 5 a. each of the array locations having a retainer that is moveable between a latched position retaining one of the objects and an unlatched position that can receive an object for retention and can release a retained object for dispensing;
- 10 b. the dispenser having microcircuitry operably communicating with each of the retainers and including a memory of objects loaded into the array locations;
- c. a reload controller having an interface accessible to a person loading the dispenser;
- 15 d. the reload controller communicating with the microcircuitry in the dispenser;
- e. the reload controller being programmed to direct loading of the dispenser with predetermined numbers of each of the varieties of the objects;
- 20 f. the reload controller being arranged to enable the microcircuitry to unlatch selected ones of the retainers in response to input from the person loading the objects so that the unlatched retainers provide access to array locations available for objects to be loaded and visual
- 25 indications to the person of array locations in which objects to be loaded can be placed;

- g. the unlatched retainers being manually latchable to retain the objects loaded into the array locations made accessible by the unlatched retainers; and
- h. the reload controller being arranged to receive
5 confirmation from the person that the objects have been placed in the accessible and visually indicated array locations.

2. The system of claim 1 wherein the reload controller is programmed to unlatch the retainers in a random manner that
10 distributes various weights of the objects randomly within the array.

3. The system of claim 1 wherein the reload controller in response to the confirmation from the person supplies the microcircuitry with information on the loading of the objects in the array locations.

15 4. The system of claim 1 wherein the dispenser is a portable case, and the microcircuitry carries the loading information from a loading site to a dispensing site.

5. The system of claim 1 wherein the microcircuitry supplies the reload controller with information on objects remaining in the array
20 locations.

6. The system of claim 1 wherein the reload controller is arranged to display to the person information on objects loaded into the dispenser.

7. A method of operating the system of claim 1, the method comprising:

- a. latching all unlatched retainers;
- 5 b. inputting to the reload controller a request to load a selected one of the variety of objects;
- c. loading the selected variety of objects into the locations having retainers unlatched by the reload controller;
- d. manually latching the retainers to retain the loaded objects; and
- 10 e. confirming to the reload controller the loading of the selected variety of the objects.

8. A method of loading a dispenser with a supply of objects to
15 be dispensed, the method comprising:

- a. using a dispenser having an array receiving varieties of the objects to be dispensed and having a latchable and unlatchable object retainer arranged at each array location;
- b. latching all unlatched object retainers within the dispenser
20 to be loaded;
- c. programming a reload controller to direct reloading of the dispenser with predetermined numbers of each of the varieties of the objects;
- d. connecting the reload controller with microcircuitry in the
25 dispenser so that the reload controller can enable the microcircuitry to selectively unlatch the retainers within the dispenser;

- e. inputting into the reload controller a request to load a selected one of the varieties of the objects;
- f. arranging the reload controller to respond to the load request by enabling the microcircuitry to unlatch selected ones of the retainers to afford access to available array locations and give a visual indication of locations available in the array for loading the selected variety of the objects;
- g. placing the selected variety of the objects in the locations having unlatched retainers and latching the retainers after the objects are loaded; and
- h. entering a confirmation into the reload controller that the selected variety of the objects has been loaded into the spaces for which the retainers were unlatched.

9. The method of claim 8 including arranging the dispenser to communicate to the reload controller information on any objects remaining in the dispenser to be reloaded.

10. The method of claim 8 including arranging the reload controller to communicate to the microcircuitry information on the loading of the selected variety of objects into the dispenser.

11. The method of claim 8 including arranging the dispenser to be portable between a loading site and a dispensing site.

12. The method of claim 11 including arranging the microcircuitry to transport loading information with the dispenser between the loading and dispensing sites.

13. A combination including a reloadable dispenser and comprising:

- a. a reload controller programmed to direct loading of the dispenser with dispensable objects;
- 5 b. the dispenser having microcircuitry retaining information on objects loaded in the dispenser;
- c. the dispenser having retainers operably connected with the microcircuitry for retaining objects loaded in the dispenser until the retainers are selectively released for dispensing;
- 10 d. the reload controller communicating with the microcircuitry in the dispenser;
- e. the reload controller being arranged to actuate the microcircuitry to access the object loading information and to release the retainers;
- 15 f. the reload controller being programmed with information on a predetermined loading of varieties of the objects to be dispensed;
- g. the reload controller having an interface accessible to a person reloading the container;
- 20 h. the reload controller being arranged to respond to a request for loading one of the varieties of the objects by releasing selected ones of the retainers to afford access to and to give the person a visual indication of locations available for loading the variety of objects; and
- 25 i. the reload controller being arranged to receive confirmation from the person that the variety of objects has been loaded into the dispenser.

14. The combination of claim 13 wherein the reload controller is arranged to display to the person information on objects loaded into the dispenser.

15. The combination of claim 13 wherein the reload controller is arranged to select retainers for release in a manner that distributes different weights of objects throughout the dispenser.

16. The combination of claim 13 wherein the dispenser is a portable case, and the microcircuitry in the dispenser carries object loading information as the case moves from a reloading site to a dispensing site.

17. A method of operating the combination of claim 13, the method comprising:

- a. latching all released retainers;
- b. inputting to the reload controller a request to load a selected one of the variety of objects;
- c. loading the selected variety of objects into the locations having released retainers;
- d. latching the released retainers to retain the loaded objects; and
- e. confirming to the reload controller the loading of the selected variety of the objects.

18. A dispenser reloading system comprising:

- 5 a. the dispenser having an array of locations for each of the objects to be dispensed and a corresponding array of retainers having latched positions blocking object entry to or exit from each location and having unlatched positions allowing object entry to and exit from each location;
- 10 b. the dispenser having microcircuitry arranged to unlatch selected ones of the retainers to enable loading of the objects into the locations and to allow dispensing of the objects from the locations; and
- c. a reload controller communicating with the microcircuitry and being programmed to unlatch retainers for locations into which objects are to be loaded.

15 19. The system of claim 18 wherein the reload controller is programmed to communicate object loading information to and from the microcircuitry.

20 20. The system of claim 19 wherein the dispenser is portable and carries the loading information between a loading and a dispensing site.

 21. A method of reducing errors that can be made in loading a variety of objects into a dispenser for dispensing, the method comprising:

- 25 a. arranging an object retainer at each object location of a dispensing array;

- b. making the object retainers latchable and unlatchable to block entry or exit of objects at locations where retainers are latched and allow entry or exit of objects at locations where retainers are unlatched;
- 5 c. making latched and unlatched conditions of the retainers readily visually discernable to a person reloading the dispenser;
- d. arranging microcircuitry in the dispenser to selectively unlatch the retainers; and
- 10 e. using a reload controller communicating with the microcircuitry to unlatch retainers where predetermined varieties of the objects should be loaded to guide a person loading the dispenser into loading each variety of objects in locations designated by the reload controller.

15 22. The method of claim 21 including manually relatching any unlatched retainers before reloading and manually relatching unlatched retainers at locations that receive loaded objects.

20 23. The method of claim 21 including arranging the microcircuitry to store information on the loading of the objects into the locations.